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2019年2月6日 星期三



系部导航

江南大学理学院
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师资队伍

教授

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【学术简介】

主要从事相位成像及应用方面的研究工作。在PIE成像领域的研究工作达到较为领先水平，并成功将其用于解决高功率激光束的远近场测量问题。基于江南大学和上海光机所的光电工程联合实验室，为神光II激光装置研制了结构紧凑、精度高和速度快的在线检测系统，其综合性能超过日本和美国的同类测量设备。

【工作及研究经历】:

2003年8月~2005年12月 韩国延世大学 近场光学国家实验室 博士后

2006年1月~2006年12月 新加坡国立大学生物工程系 博士后

2007年1月~2007年12月 韩国光州科技研究院 研究教授

2008年1月~2011年8月 英国谢菲尔德大学电子与电器工程系 博士后

2011年9月~现在 江南大学理学院 教授

【研究领域】

光学成像及检测

【主要论著】

1. Wei Yu, Shouyu Wang, Suhas Veetil, Shumei Gao, Cheng Liu*, and Jianqiang Zhu, "High-quality image reconstruction method for ptychography with partially coherent illumination," *Physical Review B*, 93, 241105(R) (2016)

2. Wei Yu, Xiaolin Tian, Xiaoliang He, Xiaojun Song, Liang Xue, Cheng Liu and Shouyu Wang "Real time quantitative phase microscopy based on single-shot transport of intensity equation (ssTIE) method, *Appl. Phys. Lett.* 109, 071112 (2016)

3. Tian, Xiaolin; Yu, Wei; Meng, Xin; Sun, Aihui; Xue, Liang; Liu, Cheng; Wang, Shouyu, "Real-time quantitative phase imaging based on transport of intensity equation with dual simultaneously recorded field of view," *Optics Letters*, 41(7) 1427-1430(2016)

4. Hua Tao, Suhas P. Veetil, Xingchen Pan, Cheng Liu and Jianqiang Zhu, "Lens Free Coherent Modulation Imaging with Collimated Illumination," *Chinese Optics Letters* 14(7), 071203 (2016).

5. Lilin Zhu, Zhicheng Xiong, Wei Yu, Xiaolin Tian, Yan Kong, Cheng Liu and Shouyu Wang "Polarization-Controlled Tunable Multi-focal Plasmonic Lens," *Plasmonics* (2016), doi:10.1007/s11468-016-0225-2.
6. Qi Wei Peng Qiu Cheng Liu Yan Kong Shouyu Wang, "Plasmonic Interference Based Refractive Index Sensor Designed with Spectral Analysis and Structure Optimization," *Plasmonics* (2016), doi:10.1007/s11468-016-0343-x.
7. X. Pan, S. P. Veetil, C. Liu, H. Tao, Y. Jiang, Q. Lin, X. Li and J. Zhu, "On-shot laser beam diagnostics for high-power laser facility with phase modulation imaging," *Laser Physics Letters*, 13(5), 055001(2016).
8. Jianqiang Zhu, Hua Tao, Xingchen Pan, and Cheng Liu, Computational imaging streamlines high-power laser system characterization, *Laser Focus World* 51(12), 39-42 (2015).
9. Hua Tao, Suhas P. Veetil, Jun Cheng, Xingchen Pan, Haiyan Wang, Cheng Liu, and Jianqiang Zhu, Measurement of the complex transmittance of large optical elements with modulation coherent imaging, *Applied Optics* 54,1776-1781(2015).
10. Hua Tao, Suhas P. Veetil, Xingchen Pan, Cheng Liu, and Jianqiang Zhu, Visualization of the influence of the air conditioning system to the high power laser beam quality with the modulation coherent imaging method, *Applied Optics* 54, 6632-6639 (2015).
11. X. Pan, S. P. Veetil, B. Wang, C. Liu, and J. Zhu, Ptychographical Imaging with Partially Saturated Diffraction Patterns, *Journal of Modern Optics* 62(15), 2015.
12. PAN Xing-Chen, LIU Cheng, ZHU Jian-Qiang, Single shot ptychographical iterative engine based on multi-beam illumination, *Applied Physics Letters* 103, 171105 (2013).
13. Pan Xincheng, Liu Cheng, Lin Qiang, Zhu Jianqiang, Ptychographic iterative engine with self-positioned scanning illumination, *Optics Express* 21(5), 2013.
14. Pan X, Veetil SP, Liu C, Zhu J, High contrast imaging for weakly diffracting specimens with ptychographical iterative engine, *Opt Lett.* 37(16), 2012.
15. PAN Xing-Chen, LIN Qiang, LIU Cheng, ZHU Jian-Qiang, A Lens Assisted Phase Microscope Based on Ptychography. *Chin. Phys. Lett* 29(8), 2012.
16. Jiang Zhilong, Pan Xingchen, Liu Cheng, Wang Ling, Zhu Jianqiang, Light field moment imaging with the ptychographic iterative engine, *AIP Advances*, 4(10), 2014.
17. Jiang Z, Veetil S P, Liu C, et al, Depth resolved imaging by digital holography with an illumination of constantly changing curvature, *Optics Letters* 40(13), 2015.
18. Zhilong Jiang, Suhas P. Veetil, Jun Cheng, Cheng Liu, Ling Wang, and Jianqiang Zhu, High-resolution digital holography with the aid of coherent diffraction imaging, *Optics Express* 23 (16), 2015.
19. Haiyan wang, Cheng Liu, Suhas P Veetil, Xingchen Pan, Jianqiang Zhu, Measurement of the complex transmittance of large optical elements with Ptychographical Iterative Engine, *Optics Express* 22 (2), 2014.
20. Haiyan Wang, Cheng Liu, Xingchen Pan, Jun Cheng, Jianqiang Zhu, Phase imaging with rotating illumination, *Chinese Optics Letters* 12(1), 2014.
21. Haiyan Wang, Cheng Liu, Xiaoliang He, Xingchen Pan, Shenlei Zhou, Rong Wu, Jianqiang Zhu, Wavefront measurement techniques used in high power lasers, *High Power Laser Science and Engineering* 2, e25, 2014.
22. H Wang, Suhas P Veetil, C Liu, J Wang, W Huang, Y Zhang, X Pan and J Zhu, Measurement of the thermal distortion of the high power laser crystal with ptychography, *Laser Physics Letters* 12, 025005, 2015.
23. Pan, Xingchen, Veetil, Suhas P., Liu, Cheng, Lin, Qiang, Zhu, Jianqiang, High-contrast imaging for weakly diffracting specimens in coherent diffraction imaging, *Chinese Optics Letters* 11(2), 2013.
24. Cheng Liu, Jian-Qiang Zhu, Rodenburg John, Influences of the illumination coherency and illumination aperture on the ptychographic iterative microscopy *Chin. Phys. B* 24 (2), 2015.
25. Xiaoliang He, Veetil S. P., Cheng Liu, Shumei Gao, Yueke Wang, Jicheng Wang, Jianqiang Zhu, Accurate focal spot diagnostics based on a single shot coherent modulation imaging, *Laser Physics Letters* 12 (1), 2015.
26. Wang Bao-Sheng, Pan Xing-Chen, Wang Hai-Yan, Cheng Jun, Gao Shu-Mei, Liu Cheng, Zhu Jian-Qiang, Super-Resolved Digital Holography Based on the Coherent Diffraction Imaging Scheme, *Chinese Physics Letters* 30 (5), 2013.

27. Cheng Liu, D.Y.Kim, J.Q.Zhu, 'Fluorescence tomography based on spatial Fourier decomposition' Chin. Opt. Lett. 6, 665-668 (2008).
28. Cheng Liu, Yunsong Bai, D.Y. Kim, "All in-one multifunctional microscopy with only one holographic measurement", Opt. Eng., Vol. 47, 087001 (2008);.
29. S.B. Cho, Cheng Liu, D.Y. Kim, "Index profiling with confocal microscopy of high numerical aperture", Applied Optics
30. Cheng Liu, D. Y. Kim, "Differential imaging in coherent anti-Stokes Raman scattering microscopy II: a filter-assisted Laguerre-Gaussian beam detection scheme " Opt. Express, Vol. 15, 12050-12059 (2007)
31. Cheng Liu, D. Y. Kim, "Differential imaging in coherent anti-Stokes Raman scattering microscopy with Laguerre- Gaussian excitation beams," Opt. Express, Vol. 15, 10123-10135 (2007)
32. Linbo Liu, Cheng Liu, Colin Sheppard, Nanguang Chen, "Binary-phase spatial filter for real-time swept-source optical coherence microscopy", Optics Letters, Vol. 32, pp. 2375-2377 (2007).
33. Cheng Liu, Fa-ke Lu, Zhiwei Huang, "Near-field effect in coherent anti-stokes Raman scattering microscopy", Optics Express, vol. 15, 4118-4131(2007)
34. Cheng Liu, Nanguang Chen, Colin Shepard, "Nano-illumination based on self-imaging inside a sub-wavelength metallic slit". Applied Physics Letters, Vol. 90, 011501 (2007).
35. Cheng Liu, "Evanescence Field on the Surface of Negative-index Planar Lens", Applied Physics Letters, 88, 213112-213114(2006).
36. Cheng Liu, "Aberration analysis of digital hologram reconstruction with a Fresnel Integration". Opt. Eng. Volume 45, Issue 7, 075802-075804(2006)
37. Cheng Liu, Seung-Han Park, "Anisotropy of near-field speckle patterns". Optics Letters, Vo. 30, 1602-1604 (2005)
38. Cheng Liu, Changchun Yan, "Resonant transmission of corrugated metallic slit". Chin. Phys. Lett. Volume 22, Issue 7,1784-1786(2005)
- 39.Cheng Liu, Seung-Han Park, "Polarization and detection angle dependence of interferometric imaging with scattering near-field scanning optical microscope", Optics Express, Volume 12, Issue 25, 6341-6349(2004)
- 40.Cheng Liu, Seung-Han Park, "Numerical analysis of an annular-aperture solid immersion lens", Optics Letters, Volume 29, Issue 15, 1742-1744(2004)
41. Cheng Liu, Yan Changchun, Gao Shumei, "Digital holographic method for tomographic image reconstruction", Applied Physics Letters Volume 84. Issue. 6, 1010-1012 (2004)
42. Cheng Liu, "Simultaneous Measurement of the Curvature, Slopes and Deformation with Digital Holography", Opt.Eng. Vol.42. No.12, 3443-3446 (2003)
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47. Cheng Liu, Zhu Jianqiang, "Digital Method for Aberration compensation in Electron holography", SPIE Vol.4919, 431-435(2002)

【科研、教学项目】

- (1) 国家自然科学基金, 基于数字全息分层成像的光学原件亚表面应力三维测量技术, 2018/01-2011/12, 62万元, 在研, 主持。
- (2) 国家自然科学基金, 基于PIE的大口径光学元件检测技术研究, 2017/01-2011/12, 56万, 在研, 主持。
- (3) 江南大学自主科研重点项目, 基于表面等离子的无相差平面透镜研究, 2017/01-2019/12, 80万元, 在研, 主持。
- (4) 江苏省自然科学基金, 基于PIE的高分辨显微成像技术研究, 2012/6-2024/7, 10万, 结题。

【在读硕、博士人数】

硕士 10人
【已毕业硕、博士人数】
硕士 10人
【以上资料更新日期】
2018年10月

分享到: 0



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